North American Drought Monitor – August 2006

CANADA: Hot, dry weather continued in many parts of the western Canadian provinces throughout August increasing deterioration in crops, forage and pasture conditions. Stream flows have been reduced significantly below normal in some regions of western Canada, with most severe and record low stream flows throughout much of British Columbia, in North Western Ontario, and some parts of southern Ontario. Hot dry weather has also contributed to increased forest fire activity in British Columbia and North Western Ontario. Eastern Canada's agricultural areas have received adequate and timely precipitation.

British Columbia has been most affected by dry conditions.. Record low or near record-low streamflows have been recorded in a large portion of the province, including much of northern British Columbia, along with the Thompson, Nicola and Similkameen basins. Rainfall in most areas of the province has been only 30-70% of normal for June and July, and less than 50% of normal during August. Vancouver Island and the South Coast, and the Kamloops, Merrit and Princeton areas have been particularly dry during August, with less than 25% of normal rainfall. Water restrictions were put in place in some regions of Vancouver Island, causing some businesses to temporarily close. Because agricultural production in British Columbia depends heavily on irrigation water from streams and rivers, without good winter snow pack melt contributions in the spring and timely and adequate supplies of rainfall in the growing season, many crops become stressed. And, for crops that take longer to establish themselves such as fruit trees and grape vines, the impact of one summer's low flows can have longer term effects on productivity. Hot, dry weather has also reduced access to grazing ranges and hay production, especially in the central interior and Peace regions.

Dry conditions persisted throughout much of Alberta in August, resulting in some crop moisture stress and depletion of soil moisture reserves over many areas. Soil moisture was variable throughout the province however the general trend was dry in the south, fair in central regions, and the Northwest was extremely dry. Streamflow conditions were generally below normal in the Bow River, Oldman River and South Saskatchewan River basins and ranged from below normal to normal in the Red Deer River, North Saskatchewan River, Athabasca River and Peace River basins. The Peace River streamflows are currently quite low for this time of the year. Because of a good start early in the growing season, crops were not as stressed when the hot, dry conditions persisted in July and August and harvest of most crops occurred more than 2 weeks earlier than normal.

Hot dry weather in August resulted in increased drought and abnormally dry designations throughout the Southern portions of Saskatchewan. Top soil moisture for the majority of the southern region was classified as very poor. The most impacted region appears to be the south west portion of the province where the hot, dry summer and strong winds contributed to below average forage yields and poor pasture conditions. Dugouts and reservoirs in this region are currently at very low levels, and some have been rendered unfit for livestock use.

Hot dry weather throughout August for most of Manitoba has increased the area of drought-affected regions with most of the southern portion of the province classified as moderate to severe drought and central regions of the province classified as abnormally dry. The summer of 2006 was among the driest on record in southern Manitoba with some areas experiencing the driest summer since the 1930's. The driest area was found between Portage la Prairie and Winnipeg where rainfall since April 1 was as little as 30% of normal. Southeast Manitoba received some relief early in August, however drought conditions still persisted. West Central Manitoba was classified as abnormally dry and the south west as moderate to severe drought. Levels and flows of many streams in southern Manitoba were well below average at the end of August. The Red River, Winnipeg River and the Souris River were all flowing at less than half their median flows for this time of year. Many smaller streams in southern Manitoba had dried up or were down to a trickle. Supplemental feeding of cattle was necessary on pastures in some regions, and the potential for a future hay shortage exists, particularly in the Interlake region. Harvest was near completion by the end of August in southern regions, making it one of the earliest harvests on record.

Adequate rainfall and good growing conditions have resulted in a favorable season for much of Ontario, Quebec and Atlantic Canada, with little or no concern for drought east of Ontario. Excess moisture may have some impacts on crops in Quebec and Atlantic Canada. In Ontario, stream flows in the northwest and some southern areas of the province are currently at low to very low conditions. Northwestern Ontario has received extremely low precipitation throughout the spring and summer months. Severe Drought conditions in this region have caused substantial crop deterioration and extremely poor pasture and forage conditions. The dry conditions have also resulted in an abnormally large number of forest fires.

UNITED STATES: By the end of August, drought was concentrated in the Plains from Texas to the Dakotas and across the Southeast from Texas to Georgia. In the drought areas, soil moisture was low, evaporation was high, vegetative health was poor, and stream flow in the Southeast was especially low. Monsoon rain and Tropical Storm Ernesto alleviated dryness in the Southwest and along the Atlantic coast. Drought impacted many sectors of the economy. Crops were highly stressed, livestock was dying or prematurely sold because of a lack of feed and water, and water restrictions were common in many areas. Disaster conditions have been declared by the governors of several states; about US$100,000,000 in aid will be distributed to farmers and ranchers affected by drought. Companies whose sales indirectly depend on precipitation, such as lawn mower manufacturers, have partially shut down because of reduced demand. Low water in the Mississippi River affected transportation of farm products, petroleum, steel and ore. Based on the Palmer Drought Index, coverage of moderate to extreme drought decreased from 51 percent of the contiguous U.S. at the end of July to 40 percent by the end of the month.

The dry weather in August was a continuation of very dry conditions for the last several months across much of the central part of the country, however, by the end of the month, beneficial rains and cooler temperatures reduced the intensity of the drought throughout much of the Plains.

The extent and timing of the mid-U.S. dryness has caused stress on crops for the nation as a whole. According to the USDA NASS report for September 3, 33% of the cotton, 38% of the sorghum, and 47% of the pasture and range land, nationwide, were in poor to very poor condition. The statewide ratings for poor to very poor condition included: Texas (pasture and range land, 78%; corn, 52%; cotton, 49%; sorghum, 55%), North Dakota (pasture and range land, 61%; corn, 27%), Alabama (cotton, 69%; pasture and range land, 67%), Wyoming (pasture and range land, 73%), Florida (peanuts, 55%), and Oklahoma (pasture and range land, 74%; cotton, 55%).

MEXICO: In August wet conditions were reported across northern and central Mexico. The National Meteorological Service (SMN) ranked August as the 12th wettest August since 1941, with an average of 156.9mm. That is in direct comparison with the long term average of 137mm calculated from 1941-2005. During August, the eastern tropical Pacific was very active as tropical storm Gilma and hurricane Ileana brought some rains to areas of western Mexico and the southern part of the Baja California peninsula. Near the end of the month another tropical storm appeared. John, whom developed south of Oaxaca, made landfall as a moderate hurricane in the southern tip of Baja California (between Los Cabos and La Paz). He brought important amounts of rain along the Baja California peninsula and in portions of western and northwest Mexico. Also, near the end of August, a cold front contributed to a short period of rain over northern México (Chihuahua, Coahuila, Nuevo León and Tamaulipas). Wet conditions were observed particularly over most of Chihuahua. A general recovery of the dam levels along the Río Conchos where reported by the National Water Commission (CNA), while floods affected several municipalities in southwestern Chihuahua (Guerrero, Matachic and Temosachic), and in the northern part of the state (Ciudad Juárez). Through August, northeastern Mexico (Coahuila, Nuevo León and Tamaulipas) and eastern Oaxaca (Tehuantepec region) continues to be the regions with the largest rainfall deficits since May 1. This is according to a National Water Comision (CNA) report at the end of August that stated that dam levels in Coahuila are at their lowest observed levels in the last 26 years.

Changes in August include a general improvement of the long-term dryness in North and Northwest México. The D3, and D2 area in southern Sonora and northern Sinaloa eroded, although most of these regions remain under abnormally dry (D0) to moderate drought (D1) conditions. No major improvements were observed in Nayarit or northwestern Sonora where a small area of extreme drought (D3) remains south of the international border. In northeastern Mexico, long-term dryness continues to be a problem. This is evident along the Gulf of Mexico coast where a D1 area was introduced from southern Tamaulipas to central Veracruz where agricultural impacts were reported over the Huasteca region. In addition, abnormally dry (D0) to moderate drought (D1) was also introduced over the Tehuantepec Isthmus.